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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,102	12/22/2000	Sidney Bell	98RE017A	5136

7590 02/13/2003

Rockwell Automation  
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EXAMINER
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TAMAI, KARL I

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/748,102

Applicant(s)

BELL, SIDNEY

Examiner

Tamai IE Karl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-11 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-11 and 13-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC ' 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 7-9, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cope et al.(Cope)(US 4,160,926), Erdman et al.(IEEE Conference) and Andrus(US 2,573,126). Cope teaches every aspect of the invention except the electrostatic shield of resin and conductive paint. Erdman teaches the entire stator length being treated with varnish and then painted with a copper(non-magnetic) paint. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Cope with a paint applied to the cured resin to construct a Faraday shield, and with the insulative protective top coat of Andrus to keep moisture from the coils and allow the motor to operate in oil or water.

3. Claims 3-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cope, Erdman (IEEE), and Andrus, in further view of Erdman et al.(US 5,661,353)('353). Cope, Erdman, and Andrus teach every aspect of the invention except the ground wall (paint) being grounded through the stator. Erdman teaches the electrostatic shield can be grounded through the stator. It would have been obvious to

a person skilled in the art at the time of the invention to construct the machine Cope, Erdmann, and Andrus with shield grounded through the stator to provide simultaneous grounding of the core and the shield.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cope et al.(Cope)(US 4,160,926), Erdman et al.(IEEE Conference), and Andrus. Cope, Erdman (IEEE) and Andrus teach every aspect of the invention except, a predetermined thickness of the insulative layer is at least 0.012 inches. It would have been obvious to a person skilled in the art at the time of the invention to construct the motor of Cope, Erdman (IEEE), and Andrus with the predetermined thickness of the insulative layer is at least 0.012 inches to provide sufficient insulation between the winding and the ground shield and because It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (see *In re Aller*, 105 USPQ 233).

5. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman et al. (IEEE Conference) and Andrus(US 2,573,126). Erdman teaches a motor with a stator and rotor. The stator core and windings are covered with a varnish and then and covered with a paint (inherently bonded to the stator). Erdman does not teach the conductive paint covered with an insulative layer. Andrus teaches the stator covered with an insulative layer 8 (plastic) to seal the stator against moisture and allow the motor to operate in oil or water. It would have been obvious to a person of ordinary

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skill in the art at the time of the invention to construct the motor of Erdman with an inner insulative layer, as in Andrus to seal the stator against moisture and allow the motor to operate in oil or water.

6. Claims 17, 18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman et al. (IEEE Conference) and Andrus(US 2,573,126), in further view of Cope et al. (Cope)(US 4,160,926). Erdman and Andrus teach every aspect of the invention except the insulative layer being a glass filled thermoset resin, which is cured on the stator core. Cope teaches a glass filled thermoset resin which is cured after being applied to the stator and core. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Erdman and Andrus with the cured resin layer of Cope et al. to insulate the coils and provide a void free resin impregnation of the coils which is less time consuming and less expensive during manufacture.

In regards to claim 17, regarding the application of the insulative layer being applied in an uncured state is a method of making limitation which has not been given patentable weight.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman et al. (IEEE Conference), Andrus(US 2,573,126), and Cope et al. (Cope)(US 4,160,926). Erdman, Andrus, and Cope teach every aspect of the invention except, a predetermined thickness of the insulative layer is at least 0.012 inches. It would have

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been obvious to a person skilled in the art at the time of the invention to construct the motor of Erdman(IEEE), Cope, and Andrus with the predetermined thickness of the insulative layer is at least 0.012 inches to provide sufficient insulation between the winding and the ground shield and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (see *In re Aller*, 105 USPQ 233).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman (IEEE) and Andrus, in further view of Erdman et al.(US 5,661,353)('353). Erdman and Andrus teach every aspect of the invention except the ground wall (paint) being grounded through the stator. Erdman teaches the electrostatic shield can be grounded through the stator. It would have been obvious to a person skilled in the art at the time of the invention to construct the machine Erdman and Andrus with shield grounded through the stator to provide simultaneous grounding of the core and the shield.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-5, 7-11, 13-22 have been considered but are not persuasive. The Applicant's statement regarding the prima facie case of obviousness is correct, and complied with by the examiner in the prior office action and repeated above. The Applicant's argument regarding the layer 8 being electrically conductive is not persuasive. Andrus teaches the layer can be reinforced glass plastic OR a non-magnetic metal (see col. 2, line 7 where the preferred material is

plastic). It is within the ordinary skill in the art to choose between the known equivalents of inner tubes for allowing the motor to operate submerged or in oil. The applicant's argument that the tube is not a protective coat as defined by the claims is not persuasive. The only limitations of the protective coat is that it is applied over the conductive layer and on an inner surface of the stator. Both of these limitations are met Andrus because the tube 8 is on the inner surface of the stator and must be over the conducting layer of Erdman to allow the motor to operate in oil or submerged, it literally coats the stator to protect it from the oil or water. The Applicant's argument that the tube 8 is not a top coat because it is adjacent the stator is not persuasive. The tube 8 is bonded to both the insulative layer 12 and the stator core (see figure 7) by cement 13, and reads on the Applicant's limitation.

The Applicant's argument regarding the motivation to combine is not persuasive. The prima facie case for obviousness was set for in the prior Office Action. The Applicant's argument that Cope does not teach an electrostatic shield is not persuasive. The Applicant is not considering the combined teachings of the cited references (see *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986) holding that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references). Erdman teaches (page 5, section C) the conductive spray is applied over the varnish which is applied to both the end windings and the stator core to prevent bearing breakdown. The Applicant's argument resin does not suggest an insulative layer is not persuasive because the resin is an insulative layer.

The Applicant's argument that the combination of Cope and Erdman would not provide an Faraday shield is not persuasive. Erdman specifically teaches the conductive layer separated by an insulating layer of varnish (or resin in Copes disclosure) covered by a conductive paint layer to create a faraday shield. The Applicant's argument that Cope and Erdman do not teach the claimed layers is not persuasive. Cope teaches the windings and insulating resin layer, and Erdman teaches a conductive layer on the insulating layer to prevent voltage breakdown. The layers of Cope and Erdman read on the Applicant's claim limitations.

The Applicant's argument that the submersible protective coating of Andrus is not sufficient motivation to combine the references is not persuasive. Non-conductive coatings in the inside of the stator are known in the art to protect the stator from water or oil, as taught by Andrus. It is well with the ordinary skill in the art to add the protective layer of Andrus to the electrostatic shield of Erdman to protect the stator oil or water, as taught by Andrus. The rejection is not lacking motivation when it is clearly provided by Andrus. The rejection is not improper hindsight, as suggested by the Applicant, when it is based on the teachings of the references. (See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971) holding that it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper).



10. The Applicant's arguments regarding Erdman and Andrus is not persuasive. The Applicant's argument that Andrus does not have an insulative layer is not persuasive for the reasons set forth above. Applicant's argument that the tube 8 is electrically conductive is not persuasive because Andrus clearly teaches the preferred material for the tube is glass reinforce plastic (col. 2, line 6), which is an insulative layer. The Applicant's argument that Andrus does not teach an electrostatic shield is not persuasive because the Applicant is arguing the references alone rather than in combination with Erdman, (see *In re Keller*, supra). The rejection is proper and maintained.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703)308-1371. The facsimile number for the Group is (703)305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Karl I Tamai  
PRIMARY PATENT EXAMINER  
February 11, 2003



KARL TAMAI  
PRIMARY EXAMINER